

UTAH **C**TE SKILL CERTIFICATION

AUTOMOTIVE SERVICE TECHNICIAN

STUDENT PERFORMANCE EVALUATION

SUSPENSION AND STEERING

Deleted: A

Student Name: _____

The performance evaluation is a required component of the Skill Certification process. Each student **must be evaluated** on the required performance standards. Performance standards may be completed and **evaluated anytime during the course**.

- Students should be aware of their progress throughout the course, so that they can concentrate on the objectives that need improvement.
- Students should be encouraged to repeat the objectives until they have performed at a minimum of a number 1 or 2 on the rating scale (moderately to highly competent level).
 - 1= highly competent Successfully demonstrated without supervision
 - 2= moderately competent Successfully demonstrated with limited supervision
 - 3= limited competence Demonstrated with close supervision
 - 4= not competent Demonstration requires direct instruction and supervision
- When a standard has been achieved at a minimum of 80% (moderately to highly competent level). "Y" (Y=YES) is recorded on the last line of that standard, on the performance evaluation sheet. If a student does not achieve a 1 or a 2 (moderately to highly competent level), then "N" (N=NO) is recorded on the last line of that standard.
- All performance standards **MUST** be completed and evaluated prior to the written test.
- The **teacher** will bubble in "A" on the answer sheet for item #81 for students who have achieved "Y" on **ALL** performance standards.
- The **teacher** will bubble in "B" on the answer sheet for item #81 for students who have **ONE or more** "N's" on the performance standards.
- The signed performance evaluation sheet(s) **MUST** be kept in the teachers' file for two years.
- A copy is also kept on file with the school's ATE Skill Certification testing coordinator for two years.

Students who achieve a 1 or a 2 (moderately to highly competent) on **ALL** performance standards and 80% on the written test will be issued an ATE Skill Certificate.

470604-01	Students will be able to understand general shop safety			
	1	2	3	4
<input type="checkbox"/>	Pass the safety test with a score of 100%.			
<input type="checkbox"/>	Identify the different types and hazards of solvents used in automotive.			
<input type="checkbox"/>	Identify the different types, purposes, and hazards of automotive greases, oils, and additives.			
<input type="checkbox"/>	Identify precautions in the use, handling, and storage of various automotive solvents, cleaners, oils, greases, and additives.			
<input type="checkbox"/>	Identify the gasses encountered in the automotive field and the hazards they present.			
<input type="checkbox"/>	Identify the hazards and control of asbestos dust.			
<input type="checkbox"/>	Comply with safety rules for working with automotive chemicals (MSDS).			

470604- diagnosis.	Students will be able to understand general suspension and steering systems			
	1	2	3	4
<input type="checkbox"/>	Complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction. P-1			
<input type="checkbox"/>	Identify and interpret suspension and steering concern; determine necessary action. P-1			
<input type="checkbox"/>	Research applicable vehicle and service information, such as suspension and steering system operation, vehicle service history, service precautions, and technical service bulletins. P-1			
<input type="checkbox"/>	Locate and interpret vehicle and major component identification numbers (VIN, vehicle certification labels, calibration decals). P-1			

470604-	Students will be able to understand steering systems diagnosis and repair			
	1	2	3	4
<input type="checkbox"/>	Disable and enable supplemental restraint system (SRS). P-1			
<input type="checkbox"/>	Remove and install steering wheel; center/time supplemental restraint system (SRS) coil (clock spring). P-1			
<input type="checkbox"/>	Diagnose steering column noises, looseness, and binding concerns (including tilt mechanisms); determine necessary action. P-2			
<input type="checkbox"/>	Diagnose power steering gear (non-rack and pinion) binding, uneven turning effort, looseness, hard steering, noise, and fluid leakage concerns; determine necessary action. P-3			
<input type="checkbox"/>	Diagnose power steering gear (rack and pinion) binding, uneven turning effort, looseness, hard steering, noise, and fluid leakage concerns; determine necessary action. P-3			
<input type="checkbox"/>	Inspect steering shaft universal-joint(s), flexible coupling(s), collapsible column, lock cylinder mechanism, and steering wheel; perform necessary action. P-2			
<input type="checkbox"/>	Adjust manual or power non-rack and pinion worm bearing preload and sector lash. P-3			
<input type="checkbox"/>	Remove and install manual or power rack and pinion steering gear; inspect mounting bushings and brackets. P-1			
<input type="checkbox"/>	Inspect and install manual or power rack and pinion steering gear inner tie rod ends (sockets) and bellows boots. P-1			
<input type="checkbox"/>	Determine proper power steering fluid type; inspect fluid level and condition. P-1			
<input type="checkbox"/>	Flush, fill, and bleed power steering system. P-2			
<input type="checkbox"/>	Diagnose power steering fluid leakage; determine necessary action. P-2			
<input type="checkbox"/>	Remove, inspect, install, and adjust power steering pump belt. P-1			
<input type="checkbox"/>	Remove and reinstall power steering pump. P-3			
<input type="checkbox"/>	Remove and reinstall power steering pump pulley; check pulley and belt alignment. P-3			
<input type="checkbox"/>	Inspect and install power steering hoses and fittings. P-2			
<input type="checkbox"/>	Inspect and install pitman arm, relay (centerlink/intermediate) rod, idler arm and mountings, and steering linkage damper. P-2			
<input type="checkbox"/>	Inspect, install, and adjust tie rod ends (sockets), tie rod sleeves, and clamps. P-1			
<input type="checkbox"/>	Test and diagnose components of electronically controlled steering systems using a scan tool; determine necessary action. P-3			
<input type="checkbox"/>	Inspect and test non-hydraulic electric-power assist steering. P-3			
<input type="checkbox"/>	Identify hybrid vehicle power steering system electrical circuits, service and safety precautions. P-3			

470604-	Students will be able to understand, identify, and properly diagnosis and repair front suspension systems.			
	1	2	3	4

Deleted: 23 April, 2007

	Diagnose short and long arm suspension system noises, body sway, and uneven riding height concerns; determine necessary action. P-1
	Diagnose strut suspension system noises, body sway, and uneven riding height concerns; determine necessary action. P-1
	Remove, inspect, and install upper and lower control arms, bushings, shafts, and rebound bumpers. P-3
	Remove, inspect, install, and adjust strut rod (compression/tension) and bushings. P-2
	Remove, inspect, and install upper and/or lower ball joints. P-1
	Remove, inspect, and install steering knuckle assemblies. P-2
	Remove, inspect, and install short and long arm suspension system coil springs and spring insulators. P-3
	Remove, inspect, install, and adjust suspension system torsion bars; inspect mounts. P-3
	Remove, inspect, and install stabilizer bar bushings, brackets, and links. P-2
	Remove, inspect, and install strut cartridge or assembly, strut coil spring, insulators (silencers), and upper strut bearing mount. P-1
	Lubricate suspension and steering systems. P-2

470604-Students will be able to understand, identify, and properly diagnosis and repair rear suspension systems.					1	2	3	4
	Remove, inspect, and install coil springs and spring insulators. P-2							
	Remove, inspect, and install transverse links, control arms, bushings, and mounts. P-2							
	Remove, inspect, and install leaf springs, leaf spring insulators (silencers), shackles, brackets, bushings, and mounts. P-3							
	Remove, inspect, and install strut cartridge or assembly, strut coil spring, and insulators (silencers). P-2							

470604- Students will be able to understand, identify, and properly diagnosis and repair miscellaneous services.		1	2	3	4
	Inspect and install shock absorbers. P-1				
	Remove, inspect, and service or replace front or rear wheel bearings. P-1				
	Test and diagnose components of electronically controlled suspension systems using a scan tool; determine necessary action. P-3				

470604-09 Students will be able to understand the importance of employability and work habits.					1	2	3	4
	Integrity							
	Punctuality							
	Staying on task							
	Productive team worker							
	Leadership							

470604- Students will be able to understand, identify, and properly diagnosis, adjust, and repair wheel alignment.					1	2	3	4
	Diagnose vehicle wander, drift, pull, hard steering, bump steer, memory steer, torque steer, and steering return concerns; determine necessary action. P-1							
	Perform prealignment inspection; perform necessary action. P-1							
	Measure vehicle riding height; determine necessary action. P-1							
	Check and adjust front and rear wheel camber; perform necessary action.P-1							
	Check and adjust caster; perform necessary action. P-1							
	Check and adjust front wheel toe and center steeling wheel. P-1							
	Check toe-out-on-turns (turning radius); determine necessary action. P-2							
	Check SAI (steering axis inclination) and included angle; determine necessary action. P-2							
	Check and adjust rear wheel toe. P-1							
	Check rear wheel thrust angle; determine necessary action. P-1							
	Check for front wheel setback; determine necessary action. P-2							
	Check front cradle (subframe) alignment; determine necessary action. P-2							

470604-Students will be able to understand, identify, and properly diagnosis and repair wheels and tires.					1	2	3	4
	Diagnose unusual tire wear patterns; determine needed repairs. P-1							
	Inspect tires, check and adjust air pressure. P-1							
	Diagnose wheel/tire vibration, shimmy and noise; determine necessary action. P-2							
	Rotate tires according to manufacturer's recommendations. P-1							
	Measure wheel, tire, axle, and hub runout; determine necessary action. P-2							
	Diagnose tire pull (lead) problem; determine necessary action. P-2							
	Balance wheel and tire assembly (static or dynamic). P-1							
	Dismount, inspect, and remount tire on wheel. P-2							
	Dismount, inspect, and remount tire on wheel equipped with tire pressure sensor. P-3							
	Reinstall wheel; torque lug nuts. P-1							
	Inspect tire and wheel assembly for air loss; perform necessary action. P-1							
	Repair tire using internal patch. P-1							
	Inspect, diagnose, and calibrate tire pressure monitoring system. P-3							

The instructor must retain a copy of this Student Performance Evaluation for two years after the student has left the program.

Student Signature: _____ Date : _____
School _____

Instructor Signature: _____ Date: _____